





January 18, 2019

Marlene H. Dortch Secretary Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Re: GN Docket No. 18-357; 5GAA Petition for Waiver to Allow Deployment of Cellular Vehicle-to-Everything (C-V2X) Technology in the 5.9 GHz Band

Dear Ms. Dortch:

Jaguar Land Rover supports the waiver request filed by the 5G Automotive Association ("5GAA") seeking permission to deploy cellular vehicle-to-everything ("C-V2X") in the upper 20 MHz of the 5.9 GHz band.

Jaguar Land Rover is a global vehicle manufacturer supported by innovation offices around the world, including our facility in Portland Oregon. With 44,000 employees, Jaguar Land Rover specializes in products focusing on high end sports and off road vehicles. In the most recent fiscal year, we commanded 620,000 unit sales worldwide, with 130,000 sales in the U.S. alone, and generated approximately \$33.6 billion in global revenue. Responding to consumer demand, all of Jaguar Land Rover's new models come equipped with LTE cellular connectivity.

Jaguar Land Rover's innovation facility in Portland, Oregon conducts research on new automotive technologies and works closely with our UK main design center on innovating future technologies. Our V2X technology team has expert knowledge of both DSRC 802.11p and C-V2X/5G-V2X (3GPPv16).

At Jaguar Land Rover, we are committed to reducing roadway fatalities, fossil fuel emissions, and traffic congestion on the highways of tomorrow. Vehicle-to-Everything ("V2X") technologies are an important part of our plan to accomplish this goal. These technologies, which can enable communications among vehicles, the infrastructure, and other road users, can unlock a variety of services that will not only improve highway safety, but also increase traffic efficiency, reduce energy consumption, and yield numerous other mobility and societal benefits. The Federal Communications Commission ("FCC") can help advance the realization of these benefits by granting 5GAA's waiver request to allow for the near term deployment of C-V2X, a promising new V2X technology.

The U.S. Department of Transportation ("USDOT") and the National Highway Traffic Safety Administration ("NHTSA") continue to stress the potential of V2X technologies to improve automotive safety. In its Notice of Proposed Rulemaking proposing to mandate vehicle-

<sup>&</sup>lt;sup>1</sup> See Jaguar Land Rover Automotive PLC, Annual Report 2017/2018, at 3, 70 (July 2018), http://annualreport2018.jaguarlandrover.com/assets/files/jlr-ara-2017-18.pdf.

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to-vehicle capabilities in new automobiles, NHTSA stated that vehicle-to-vehicle communications alone have "the potential to revolutionize motor vehicle safety." Consistent with this sentiment, the USDOT, in its recent "Preparing for the Future of Transportation: Automated Vehicle 3.0" report, found that V2X technologies can enhance the benefits of automated vehicles. The USDOT also urged all stakeholders to continue developing V2X technologies that leverage the 5.9 GHz spectrum for transportation safety benefits.

Historically, Dedicated Short Range Communications ("DSRC") technology was the only available V2X technology. Today, that is no longer the case. C-V2X is a modern V2X technology with an evolution path to 5G. Ultimately, C-V2X may be able to deliver new and improved V2X services to vehicles and drivers. Jaguar Land Rover is actively exploring the benefits of C-V2X, and, as part of these efforts, is a board member of 5GAA, the global organization promoting the development and advancement of C-V2X around the world.

The FCC can help facilitate the continued advancement of C-V2X by granting 5GAA's waiver request. Allowing for C-V2X operations in a portion of the 5.9 GHz band will afford industry stakeholders the certainty necessary to increase investment and innovation in C-V2X. It also will level the playing field between C-V2X and DSRC, which will allow automobile manufacturers, and not regulators, to select the best V2X technology. Ultimately, this approach will ensure that consumers can enjoy the benefits provided by the best V2X technology available and that such technology is robustly deployed. This approach is not only consistent with the FCC's historic approach to communications services, but it also is consistent with the USDOT's position that it will not promote any particular V2X technology over another.

With the proliferation of V2X technologies, we are on the verge of a major breakthrough in vehicle connectivity. V2X technology is an important part of Jaguar Land Rover's plan for improving safety, mobility, and traffic efficiency, and, as part of this plan, Jaguar Land Rover is actively exploring the benefits of C-V2X. The FCC can help accelerate the advancement, investment, and innovation in V2X technologies by granting 5GAA's waiver request. A grant will ensure an even playing field that will allow automobile manufacturers to determine the best technology for delivering the safety and other important societal benefits made possible by V2X services.

Colin Lee

Sincerely

V2X Global V2X owner